

Art Unit: 2882

<sup>(iv)</sup>  
~~“(f)”~~ means for analyzing the collected, diffracted x-rays to map the 4D 3/17/10  
 lattice parameter in the polycrystalline material.”

to:

<sup>(iv)</sup>  
~~“(f)”~~ means for analyzing the collected, diffracted x-rays; 4D 3/17/10  
<sup>(v)</sup>  
~~“(g)”~~ means for quantitatively mapping a lattice parameter in the 4D 3/17/10  
 polycrystalline material using said analyzed, collected, diffracted x-rays.--

### ***Allowable Subject Matter***

Claims 1-24 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to Claim 1, the prior art of record teaches many of the elements of the claimed invention, including an x-ray diffraction method for the analysis of polycrystalline materials, the method comprising: providing a polycrystalline material sample for analysis; providing a polychromatic x-ray source, wherein the source produces x-rays by accelerating charged particles to energies of no more than 1 MeV; collimating x-rays from the polychromatic x-ray source into a beam having a divergence in the range of from  $10^{-4}$  to  $10^{-2}$  radians; exposing at least a portion of the polycrystalline material to the collimated x-ray beam, whereby the x-ray beam is diffracted; collecting at least some of the diffracted x-rays in an energy dispersive x-ray detector or array; and, analyzing the collected, diffracted x-rays to determine a lattice parameter in the polycrystalline material.